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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,052	01/31/2001	Nils Seifert	0075/004001	1833

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SMITH PATENT OFFICE  
1901 PENNSYLVANIA AVENUE N W  
SUITE 901  
WASHINGTON, DC 20006

EXAMINER
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SALTARELLI, DOMINIC D

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/774,052	Applicant(s) SEIFERT, NILS	
	Examiner Dominic D. Saltarelli	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because on line 1, the phrase "The invention relates to..." should be removed. Correction is required. See MPEP § 608.01(b).

### ***Priority***

3. This claimed priority application DE 100 04 829.3, filed January 31, 2000 under 35 U.S.C 119 is granted.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 7 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 7, on line 8, the limitation  $2^k < h < 2^{z+1}$  ( $z \geq 0$ ) is a mathematically unsound limitation. First, the variable  $k$  is defined in claim 1 as  $2 \leq k \leq n$ . Thus for values of  $z = 1$  and  $z = 0$ , the limitation is impossible to meet, as there is no value of  $h$  which would satisfy the limitation. Further for all values of  $k$ , only when  $z \geq k$  would a value of  $h$  be available that can satisfy the limitation. The examiner's best understanding of this claim is that applicant intended for these limitations to read on the disclosure, page 24 line 11 – page 25 line 3, which describes the sending of data units that are not designated by a power of 2 in the times between the sending of data units that are designated by a power of 2 (1, 2, 4, 8, 16... etc.).

Regarding claim 18, on line 3,  $b$  is defined as being equal to or less than  $x$ , yet in order to satisfy the limitation on lines 4 –5 regarding the contents of the other part of the data stream  $D_1, \dots, D_{b-1}, D_{b+1}, \dots, D_x$ , the value of  $b$  cannot be, 1, 2,  $x-1$ , or  $x$ . The examiner's best understanding of this claim is that the data units which comprise the other part of the data stream are those which do not comprise the first part of the data stream.

***Claim Rejections - 35 USC § 102***

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3-7, 11-13, and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Viswanathan et al (5,936,659) [Viswanathan].

Regarding claims 1 and 16, Viswanathan discloses transmitting data units of a multimedia data stream from a transmitting facility to a plurality of receiving facilities (col. 4, lines 30-58), in which method:

n data sets are sent with the aid of the transmitting facility (plural data sets are shown transmitted in fig. 4);

the sending of a first data set  $M_1$  of the n data sets begins at a time  $t_1$  (the first data set shown in fig. 4 being the data units being sent on Channel\_1 designated as the blocks for the first movie [1/1], and having a starting time designated as the start of the displayed stream, col. 5, lines 25-32);

the first data set  $M_1$  comprises all data units of the data stream (the first set is only comprised of data units belonging to the first movie);

the sending of a further data set  $M_k$  of the n data sets begins at a time  $t_k$  (the sending of the data on channel 3 starts at a time different than the time when

the data on channel was first sent, as shown by the noticeable gap in the left hand side of the bar designated Channel\_3 in fig. 4);

the further data set  $M_k$  comprises part of the data units of the data stream (designated as blocks for the first movie [1/3], shown in fig. 4); and

the  $n$  data sets are sent in a such a manner that in the receiving facility, a reproduction of the data units of the data stream as predetermined time sequence of information can be begun at a starting time  $t_k^A = t_k + \theta$  and ended at an ending time  $t_k^E = t_k^A + \Delta t$ , where  $\theta$  is a period characteristic of the transmission of individual data units of the stream from the transmitting facility to the receiving facility (the starting time for reproduction can begin at anytime the first segment is ready after a request, shown as point B in fig. 4, col. 5, lines 33-41, thus point B can be located at a position that satisfies the above criteria) and  $\Delta t$  is a period characteristic of the reproduction of all data units of the data stream as the predetermined time sequence of information (wherein  $\Delta t$  is simply the amount of time it takes to play an entire movie, thus it is inherent that the ending time is equal to the starting time plus the length of the movie);

wherein the further data set  $M_k$  is formed from selected data units of the data stream for which an earlier transmission is begun at least once by the transmitting facility in a time interval between a time  $t_{k-1}$  and time  $t_k$  (which is the time interval shown in fig. 4 required to send data unit [1/3]), a time interval  $(t_{k-1} - t_k)$  being smaller than  $\Delta t$  for at least two successive times  $t_k$  and  $t_{k+1}$  (the time to form and send any particular data set is less than the time required to display the

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entire movie, as each data set is a portion of the entire movie, col. 5, lines 14-24).

Regarding claim 3, Viswanathan discloses the method of claim 1, wherein the times  $t_1$  and  $t_k$  are predetermined at the transmitting end (broadcast times of data sets is independent of requests, thus are predetermined by the transmitter, as shown in fig. 4, col. 5, lines 33-41).

Regarding claim 4, Viswanathan discloses the method of claim 1, wherein an essentially equal time interval is formed in each case between times  $t_{k-1}$  and  $t_k$  (as shown in fig. 4, the time interval defined above is constant, as the transmission time for the data sets in each channel is periodic and constant).

Regarding claims 5 and 6 (wherein  $p = 0$ ), Viswanathan discloses the method of claim 1, wherein the data stream comprises  $x$  data units  $D_x$  (as shown in fig. 4), the transmitting between the transmitting facility and the receiving facility is performed over a predetermined period which is divided into time intervals  $\Delta t_y$ , the sending of an  $m^{\text{th}}$  data unit  $D_m$  being begin transmitted within each  $m^{\text{th}}$  time interval  $\Delta t_m$  (again, as shown in fig. 4, the transmission of each data unit on each channel is a fixed and regular periodic transmission).

Regarding claim 7, Viswanathan discloses the method of claim 1, wherein the datastream comprises  $x$  data units  $D_x$ , the transmitting time between the transmitting facility and the receiving facility is performed over a predetermined period which is divided into time intervals  $\Delta t_y$ , all  $m^{\text{th}}$  data units  $D_m$  being sent in each  $m^{\text{th}}$  time interval  $\Delta t_m$ , when  $m = 2^p$  and all  $h^{\text{th}}$  data units  $D_h$  for which  $2^z < h < 2^{z+1}$ , exactly once between the  $2^z$  time interval and the  $2^{z+1}$  time interval (the  $m$  data units are those for any one movie on channels 1, 2, and 4, and the  $h$  data units are those for any one movie on channels 3, 5, and 6, wherein as seen in fig. 4, for example, in the time between sending the data units for the first movie [1/1] and [1/2], the data unit [1/3] is sent exactly once, and because of the progressively larger segment size on each consecutive channel, this pattern holds true for all values of  $m$  and  $h$ ).

Regarding claims 11-13, Viswanathan discloses the method of claim 1, wherein a data unit  $D_x^E$  of the data stream which is received by the receiving facility is reproduced with the aid of replay means at a replay time  $t_x^w$  within the predetermined time sequence of information items, an  $m^{\text{th}}$  data unit  $D_m$  of the data stream being sent in such a manner that an  $m^{\text{th}}$  received data unit  $D_m^E$  comprising the transmitted  $m^{\text{th}}$  data unit  $D_m$  is received by the receiver facility closely in time to a replay time  $t_m^w$  and stored in storage means of the receiving facility if the replay time for the  $m^{\text{th}}$  received data unit has not yet been reached [when the receiving time  $<$  (replay time minus the time to download a segment)  $<$



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(receiving time plus time it takes to replay a segment)] (when  $m = 1$ , the first data unit sent is replayed by the replay unit closely in time to when it is sent [within 1 minute] and for  $m > 1$  the segments are stored in memory halfway through the consumption of the previous segment, col. 4, lines 59-62 and col. 4, lines 33-41).

Regarding claim 17, Viswanathan discloses the device of claim 16, wherein the transmitting means comprise at least two transmitters for transmitting the data units, the two transmitters being controllable with the aid of the control device in such a manner that a part of the data stream can be sent via one of the at least two transmitters and another part of the data stream can be sent via another one of the at least two transmitters (the server utilizes multiple sockets to stream each channel of data units individually, col. 6, lines 4-22).

Regarding claim 18, Viswanathan discloses the device of claim 17, wherein the one part of the data stream comprises at least one data unit  $D_b$  of the  $x$  data units and the other part of the data stream comprise all other data units not in the first part of the data stream (when  $K = 2$ , the data units are split between two channels, wherein each channel carries different ones of the data units, col. 4, lines 30-58).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Viswanathan.

Regarding claim 2, Viswanathan discloses the method of claim 1, but fails to disclose an input of a user of the receiving facility for establishing the time  $t_1$  is electronically detected, the input being transmitted to the transmitting facility via a return data channel formed between the transmitting facility and the receiving facility.

Examiner takes official notice that it is notoriously well known in the art to only start streaming selected movies in VOD and NVOD system upon request from at least one user, so as to not waste bandwidth streaming movies that are not being watched by any users at any given time.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Viswanathan to include receiving an input of a user of the receiving facility for establishing the time  $t_1$  is electronically detected, the input being transmitted to the transmitting facility via a return data channel formed between the transmitting facility and the receiving facility, for the

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benefit of not waste bandwidth streaming data that is not being used by any users at any given time.

Regarding claim 14, Viswanathan discloses the method of claim 1, but fails to disclose a data stream is encrypted.

Examiner takes official notice that it is notoriously well known in the art to encrypt data streams, increasing the security of the data being sent.

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Viswanathan to include encrypting the data stream, for the benefit of increased security, preventing unauthorized users from accessing the data stream.

Regarding claim 15, Viswanathan discloses the method of claim 14, wherein the first data set  $M_1$  and a further data set  $M_k$  of the  $n$  data sets are transmitted in a such a manner that during the reproduction of data units in the receiving facility, data units are reproduced for a predetermined starting period after the starting time  $t_k^A = t_k + \theta$  (this is an inherent feature, since  $\theta$  is a period characteristic of the transmission time from the transmission facility to the receiving facility, the starting time for reproduction of the data units cannot start until after the data units have been received, and Viswanathan teaches that reproduction of a segment takes place at a fixed time interval with relation to the

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reception of said segment, col. 5, lines 33-41). This holds true for all, both encrypted and unencrypted, data units.

9. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Viswanathan in view of Garfinkle (5,530,754).

Regarding claims 8-10, Viswanathan discloses the method of claims 5-7, but fails to disclose wherein the data units  $D_x$  of the data stream of a total data stream are comprised of data units  $D_{x^*}$  ( $x^* = v + x$ ;  $v \geq 1$ ), wherein  $v$  is a number of data units  $D_{x^*}$  of the total data stream which are conveyed to the receiving facility before the time  $t_1$  so that the following holds true when the  $m^{\text{th}}$  data unit  $D_m$  is sent:  $v < m \leq x^*$ .

In an analogous art, Garfinkle teaches downloading "lead-in" content in a video on demand service, namely the first 2 minutes of a selectable movie, allowing for a seamless transition into a selected movie (col. 4, lines 13-34).

It would have been obvious at the time to a person of ordinary skill in the art to modify the method disclosed by Viswanathan to include downloading "lead-in" content prior to the beginning of a selected download, as taught by Garfinkle, for the benefit of allowing for a seamless (no time delay) transition into a selected movie. The amount of data represented by the "lead in" is  $v$  and is of sufficient length to begin the downloading of the movie, which are the segments  $m$ , thus the seamless transition satisfies the criteria of  $v < m$ .

***Conclusion***

10. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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## Certificate of Mailing

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

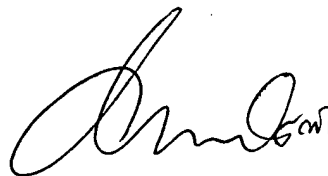
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dominic D. Saltarelli whose telephone number is (571) 272-7302. The examiner can normally be reached on Monday - Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dominic Saltarelli  
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DS



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